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WHAT IS CLAIMED IS:

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A method of communicating information between a first program and a

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3	relaying said information between said first program and a first
4	communications program over a first network connection;
5	relaying said information between said first communications program and a
6	second communications program over a second network connection,
7	wherein
8	said first communications program creates said second network
9	connection to said second communications program through a
10	first firewall program,
11	said first firewall program prevents access to said first program
12	iritiated by said second program, and
13	said second network connection is initiated by said first
14	communications program; and
15	relaying said information between said second communications program and
16	said second program over a third network connection.

- 2. The method of claim 1, wherein said first program, said first communications program, said second communications program and said first firewall program are executed on a first computer system.
- 3. The method of claim 1, wherein said second communications program and said second program are executed on a first computer system.
- 1 4. The method of claim 1, wherein said first communications program is 2 a protocol daemon and said second communications program is a relay program.
 - 5. The method of claim 1, wherein said first firewall program also prevents access to said first program initiated by said second communications program.



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6.	The method of claim 1, wherein said first communications program
relays said in	formation between said first and said second network connections.

- 7. The method of claim 1, wherein said second communications program relays said information between said second and said third network connections.
 - 8. The method of claim 1, wherein said first program requires said first network connection to be initiated as an in-bound network connection relative to said first program, said first network connection is initiated by said first communications program, and said first network connection is in-bound relative to said first program.
 - 9. The method of claim 1, wherein said first firewall program prevents access to said first program by preventing an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and said second network connection is created as an out-bound network connection from said first communications program to said second communications program.
 - 10. The method of claim 1, wherein said third network connection is created through a second firewall program, said second firewall program prevents access to said second program initiated by said second communications program, and said third network connection is initiated by said second program.
- 11. The method of claim 10, wherein said second firewall program prevents access to said second program by inhibiting an in-bound network connection to said second program, said in-bound network connection being in-bound relative to said second program.

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12. A method of communicating information between a first program and a
second program over a network comprising:
relaying said information between said first program and a first
communications program over a first network connection, wherein
said first program creates said first network connection to said first
communications program through a first firewall program,
said first firewall program prevents access to said first program
initiated by said second program, and
said first network connection is initiated by said first program; and
relaying said information between said first communications program and said
second program over a second network connection.

- 13. The method of claim 12, wherein said first program, said first communications program and said first firewall program are executed on a first computer system.
- 14. The method of claim 12, wherein said first communications program is a relay program.
- 15. The method of claim 12, wherein said first firewall program also prevents access to said first program initiated by said first communications program.
 - said first firewall program prevents access to said first program by preventing an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and said first network connection is created as an out-bound network connection from said first program to said first communications program.



17. The method	olyciaim 12, wherein.	/ `
said second network	connection is created from said	second program to said
first commur	ications program through a sec	ond firewall program,
said second firewall	program prevents access to said	d second program initiated
by said first o	ommunications program, and	
said second network	connection is initiated by said	second program.

18. The method of claim 17, wherein said second firewall program prevents access to said second program by inhibiting an in-bound network connection to said second program, said in-bound network connection being in-bound relative to said second program.

19. A method of communicating information over a network comprising: relaying said information between a first program and a first communications program over a first network connection, wherein said first program requires said first network connection to be initiated as an in-bound network connection relative to said first program, said first network connection is initiated by said first communications program, and said first network connection is in-bound relative to said first program;

relaying said information between said first communications program and a second program over a second network connection, wherein said first communications program creates said second network connection to said second program through a first firewall program said first firewall program prevents access to said first program initiated by said second program, and said second network connection is initiated by said first

communications program.

and



20.	The method of claim 19, wherein said first program, s	ajd first
communication	ons program and said first firewall program are executed	on a first
computer syst	tem.	

- 21. The method of claim 19, wherein said first communications program is a protocol daemon.
 - 22. The method of claim 19, wherein said first firewall program prevents access to said first program by preventing said in-bound network connection to be initiated from a side of said first firewall program that is opposite to a side of said first firewall program to which said first program is coupled, and said second network connection is created as an out-bound network connection from said first communications program to said second program.
 - 23. A method of supporting network communications comprising:
 creating a first network connection between a first communications program
 and a first program;
 creating a second network connection from said first communications program
 to a second communications program, wherein said first
 communications program creates said second network connection
 through a first firewall program;
 creating a third network connection between a second program and said
 second communications program; and
 communicating information between said first program and said second
 program by

communicating said information over said first network connection, said second network connection and said third network connection,

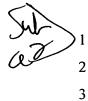


communicating\sa	id information between said	Tirst network connection
and said se	cond network connection vi	said first
communic	ations program, and	
communicating sa	id information between said	second network
connection	and said third network conr	nection via said second
communic	ations program.	

- 24. The method of claim 23, wherein said first program, said first communications program, said second communications program and said first firewall program are executed on a first computer system.
- 25. The method of claim 23, wherein said second communications program and said second program are executed on a first computer system.
 - 26. The method of claim 23, wherein said first communications program is a protocol daemon and said second communications program is a relay program.
 - 27. The method of claim 23 wherein said first firewall program protects said first program by preventing an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program.
- 28. The method of claim 23, wherein said third network connection is created from said second program to said second communications program through a second firewall program, wherein said second firewall program prevents an in-bound network connection to said second program, said in bound network connection being in-bound relative to said second program.
- 29. The method of claim 23, further comprising: providing a first instance of a password to said first communications program;



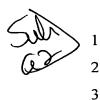
_3	passing said first instance of said password from said first communications
4	program to said second communications program during creation of
5	said second network connection;
6	providing a second instance of said password to said second program;
7	passing said second instance of said password from said second program to
8	said second communications program during creation of said third
9	network connection; and
10	associating said second connection with said third connection using said first
11	and said second instances of said password.
1	30. The method of claim 29, wherein said passing said first instance of said
2	password further comprises:
3	sending said first instance of said password from said first communications
4	program to said second communications program; and
5	entering information regarding said second network connection and said
6	password in a connection list maintained by said second
7	communications program, said first instance of said password being
8	entered in a password entry.
1	31. The method of claim 29, wherein said associating further comprises:
2	matching said second instance of said password with said password entry in
3	said connection list, said password entry containing said password;
4	entering information regarding said third network connection in said
5	connection list; and
6	associating said second and third connections.
1	32. The method of claim 31, wherein said associating said second and third
2	connections further comprises:
3	relaying said information between said second and third connections.
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A computer program product encoded in computer readable media for
relaying information between a first program and a second program over a network,
the computer program product comprising:
a first set of instructions, executable by a processor and configured to cause
said processor to relay said information between said first program and
a first communications program over a first network connection;
a second set of instructions, executable by said processor and configured to
cause said processor to relay said information between said first
communications program and a second communications program over
a second network connection, wherein
said first communications program creates said second network
connection to said second communications program through a
first firewall program,
said first firewall program prevents access to said first program
initiated by said second program, and
said second network connection is initiated by said first
communications program; and
a third set of instructions, executable by said processor and configured to
cause said processor to relay said information between said second
communications program and said second program over a third
network connection.
34. The computer program product of claim 33, wherein said first set of
instructions and said second set of instructions are executed on a first computer

system.

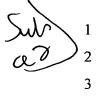
35. The computer program product of claim 33, wherein said first firewall program also prevents access to said first program initiated by said second communications program.



36. The computer program product of claim 33, wherein said first program
is executed on a first processor, said first communications program is executed on a
second processor, said second communications program is executed on a third
processor and said second program is executed on a fourth processor.

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- 37. The computer program product of claim 33, wherein said first program is executed on a first processor, first communications program is executed on a second processor and said second program is executed on a third processor.
 - 38. The computer program product of claim 33, wherein said first program requires said first network connection to be initiated as an in-bound network connection relative to said first program, said first network connection is initiated by said first communications program, and said first network connection is in-bound relative to said first program.
 - 39. The computer program product of claim 33, wherein said first firewall program prevents access to said first program by preventing an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and said second network connection is created as an out-bound network connection from said first communications program to said second communications program.
 - 40. The computer program product of claim 33, wherein said third network connection is created through a second firewall program, said second firewall program prevents access to said second program initiated by said second communications program, and said third network connection is initiated by said second program.



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41. The computer program product of claim 40, wherein said second firewall program prevents access to said second program by inhibiting an in-bound network connection to said second program, said in-bound network connection being in-bound relative to said second program.

42. A computer program product encoded in computer readable media for communicating information over a network, the computer program product comprising:

a first set of instructions, executable by a processor and configured to cause said processor to relay said information between a first program and a first communications program over a first network connection by virtue of being configured to cause said processor to create said first network connection from said first program to said first communications program through a first firewall program, wherein said first firewall program prevents access to said first program initiated by a second program, and

said first network connection is initiated by said first program; and a second set of instructions, executable on said processor and configured to cause said processor to relay said information between said first communications program and said second program over a second network connection.

- 43. The computer program product of claim 42, wherein said first set of instructions and said second set of instructions are executed on a first computer system.
- 44. The computer program product of claim 42, wherein said first program is executed on a first processor, said first communications program is executed on a second processor and said second program is executed on a third processor.



45. The computer program product of claim 42, wherein said first firewall program also prevents access to said first program initiated by said first communications program.

- 46. The computer program product of claim 42, wherein said first communications program is a relay program.
 - 47. The computer program product of claim 42, further comprising:
 a third set of instructions, executable on said processor and configured to
 cause said processor to prevent access to said first program through
 said first firewall program by virtue of being configured to prevent an
 in-bound network connection to said first program, said in-bound
 network connection being in-bound relative to said first program, and
 a fourth set of instructions, executable on said processor and configured to
 cause said processor to create said first network connection as an outbound network connection from said first program to said first
 communications program
 - 48. The computer program/product of claim 42, further comprising:
 a third set of instructions, executable on said processor and configured to
 cause said processor to create said second network connection from
 said second program to said first communications program through a
 second firewall program;
 - a fourth set of instructions, executable on said processor and configured to
 cause said processor to prevent access to said second program initiated
 by said first communications program through said second firewall
 program; and
 - a fifth set of instructions, executable on said processor and configured to cause said processor to initiate said second network connection from said second program.



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49. The computer program product of claim 42, further comprising:
a sixth set of instructions, executable on said processor and configured to
cause said processor to prevent access to said second program through
said second firewall program by inhibiting an n-bound network
connection to said second program, said in-bound network connection
being in-bound relative to said second program;

A computer program product encoded in computer readable media for communicating information between a first program and a second program over a network, the computer program product comprising

a first set of instructions, executable by a processor and configured to cause said processor to relay said information between a first program and a first communications program over a first network connection, wherein said first program requires said/first network connection to be initiated as an in-bound network connection relative to said first program,

said first network connection is initiated by said first communications program, and

said first network connection is in-bound relative to said first program; and

a second set of instructions, executable on said processor and configured to cause said processor to relay said information between said first communications program and a second program over a second network connection, wherein

said first communications program creates said second network connection to said second program through a first firewall program

said first firewall program prevents access to said first program initiated by said second program, and said second network connection is initiated by said first

communications program.



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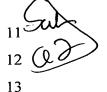
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51.	The computer program product of claim 50, wherein said first set of
instructions ar	nd said second set of instructions are executed on a first computer
system.	

- 52. The computer program product of claim 50, wherein said first communications program is a protocol daemon.
- 53. The computer program product of claim 52/wherein said plurality of entries comprises a routing table, further comprising:
 - a third set of instructions, executable on said processor and configured to cause said processor to prevent access to said first program by virtue of said first firewall program preventing said in-bound network connection to be initiated from a side of said first firewall program that is opposite to a side of said first firewall program to which said first program is coupled; and
 - a fourth set of instructions, executable on said processor and configured to cause said processor to create said second network connection as an out-bound network connection from said first communications program to said second program.

54. A network comprising:

- a first program executed on a first computer;
- a first firewall program executed on a second computer coupled to said first computer;
- a second program executed on a third computer coupled to said second computer; and
- a third program executed on a fourth computer coupled to said third computer, wherein
 - said first firewal program is configured to prevent access to said first program initiated by said third program,



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said first program is configured to initiate a first network connection to said second program through said first firewall program, and said second program and said third program are configured to support a second network connection between said second program and said third program.

- The network of claim 54, wherein said first program, said first communications program and said second program are executed on said first computer.
- The network of claim 54, wherein said second program and said third program are executed on said fourth computer.
- The network of claim 54, further comprising:
 a second firewall program executed on a fifth computer coupled between said
 third computer and said fourth computer.
 - 58. The network of claim 57, wherein said second firewall program is configured to prevent access to said third program initiated by said first program.
 - 59. The network of claim 58, wherein said second firewall program prevents access to said third program by inhibiting an in-bound network connection to said third program, said in-bound network connection being in-bound relative to said third program.
 - 60. The network of claim 57, wherein said first firewall program is also configured to prevent access to said first program initiated by said second program and said second firewall program is also configured to prevent access to said third program initiated by said second program.

rul	61.	The network of claim 57, wherein
202	said fi	rst firewall program is configured to prevent access to said first program
3		by virtue of being configured to prevent an in-bound network
4		connection to said first program, said in-bound network connection
5		being in-bound relative to said first program, and
6	said fi	rst program is configured to create said first network connection as an
7		out-bound network connection from said first program to said second
8		program.
1	62.	The network of claim 57, wherein.
2	said se	econd network connection is created from said second program to said
3		first communications program through a second firewall program,
4	said se	econd firewall program prevents access to said second program initiated
5		by said first communications program, and
6	said se	econd network connection is initiated by said second program.
1	63.	The network of claim 54, further comprising:
2	a four	th program executed on a fifth computer coupled to said first computer,
3		wherein
4		said first program is configured to initiate a third network connection
5		to said fourth program, said third network connection being in-
6		bound relative to said fourth program, and
7		said fourth program is configured to require said third network
8		connection to be initiated as an in-bound network connection
9		relative to said fourth program.

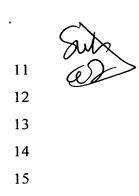
- The network of claim 63, wherein said first firewall program also 1 64. prevents access to said first program initiated by said second program. 2
- The network of claim 63, wherein said first firewall program also 65. 1 prevents access to said fourth program initiated by said second program. 2

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1	66. The network of claim 63, wherein
2 4	said first firewall program prevents access to said first and said fourth
3	programs by preventing in-bound petwork connections to said first an
4	said fourth programs, and
5	said first network connection is created as an out-bound network connection
6	from said first program to said second program.
1	67. The network of claim 63, where n
2	said third network connection is created through a second firewall program,
3	said second firewall program prevents access to said third program initiated b
4	said first and said second programs, and
5	said third network connection is initiated by said third program.
1	68. The network of claim 63, wherein said second firewall program
2	prevents access to said third program by inhibiting an in-bound network connection
3	said third program, said in-bound network connection being in-bound relative to said
4	third program.
1	69. A network comprising:
2	a first program executed on a first computer;
3	Lea second program executed on a second computer coupled to said first
4	computer;
5	a first firewall program executed on a third computer coupled to said first
6	computer;
7	a third program executed on a fourth computer coupled to said second
8	computer, wherein
9	said first firewall program is configured to prevent access to said first
10	program initiated by said third program,
11	said first program is configured to initiate a first network connection t
12	said second program through said first firewall program,

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13	said second program is configured to initiate a second network
14	connection to said first program, said second network
15	connection being in-bound relative to said first program, and
16	said first program is configured to require said second network
17	connection to be initiated as an in-bound network connection
18	relative to said first program.
1	70. The network of claim 69, wherein said first program, said second
2	program and said first firewall program are executed on said first computer.
1	71. The network of claim 69, wherein
2	said first firewall program prevents access to said first program by preventing
3	said in-bound network connection to be initiated from a side of said
4	first firewall program that is opposite to a side of said first firewall
5	program to which said first program is coupled, and
6	said second network connection is created as an out-bound network connection
7	from said second program to said third program.
1	72. The network of claim 71, wherein said first firewall program is also
2	configured to prevent access to said second program initiated by said third program.
1	73. A method of communicating information between a first program and a
2	second program over a network comprising:
3	creating a first out-bound hetwork connection from a first communications
4	program to said first program, wherein said first out-bound network
5	connection is out bound relative to said first communications program;
6	creating a second out-bound network connection from said first
7	communications program to said second program through a first
8	firewall program, wherein
9	said second out-bound network connection is out-bound relative to said

first communications program

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said first firewall program prevents in-bound	d access to said first
program,	

said in-bound access is a network connection that is in-bound relative

to said first program, and

said first program is configured to accept/only an in-bound connection

to said first program; and

relaying said information between said first our-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

said first communications program.

74. The method of claim 73, wherein said first communications program is a protocol daemon.

75. The method of claim 73, wherein said second out-bound network connection is created through a second firewall program, wherein said second firewall program prevents in-bound access to said second program.

76. The method of claim 73, wherein said first program, said first communications program and said first firewall program are executed on a first computer system.

77. A computer system comprising:

2 a processor;

computer readable medium coupled to said processor; and

computer code, encoded in said computer readable medium, configured to

cause said processor to:

create a first out-bound network connection from a first

communications program to said first program, wherein said

first out-bound network connection is out-bound relative to said

first communications program;

10	create a second out-bound network connection from said first
11	communications program to said second program through a
12	first firewall program, wherein
13	said second out-bound network connection is out-bound
14	relative to said first communications program
15	said first firewall program prevents in-bound access to said firs
16	program,
17	said in-bound access is a network connection that is in-bound
18	relative to said first program, and
19	said first program is configured to accept only an in-bound
20	connection to said first program; and
21	relay said information between said first out-bound network connection
22	and said second out-bound network connection, said relaying
23	performed by said first communications program.
1	78. The computer system of claim 77, wherein said first communications
2	program is a protocol daemon.
1	79. The computer system of claim 77, wherein said computer code
2	configured to cause said processor to create said second out-bound network
3	connection is further configured to cause said processor to:
4	create said second out bound network connection through a second firewall
5	program, wherein said second firewall program prevents in-bound
6	access to said second program.
1	80. The computer system of claim 77, wherein said computer code
2	configured to cause said processor to create said first out-bound network connection,
3	create said second out-bound network connection, and relay said information is
4	executed on a single processor.

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1	81.	A computer program product encoded in computer readable media,
2	said computer	program product comprising:
3	∠ a first :	set of instructions, executable on a computer system, configured to
4		create a first out-bound network connection from a first
5		communications program to said first program, wherein said first out-
6		bound network connection is out-bound relative to said first
7		communications program;
8	a secoi	nd set of instructions, executable on said computer system, configured to
9		create a second out-bound network connection from said first
10		communications program to said second program through a first
11		firewall program, wherein
12		said second out-bound network connection is out-bound relative to said
13		first communications program
14		said first firewall program prevents in-bound access to said first
15		program,
16		said in-bound access is a network connection that is in-bound relative
17		to said first program, and
18		said first program is configured to accept only an in-bound connection
19		to said first program; and
20	a third	set of instructions, executable on said computer system, configured to
21		relay said information between said first out-bound network connection
22		and said second out bound network connection, said relaying
23		performed by said first communications program.
1	82.	The computer program product of claim 81, wherein said first
2	communication	ons program is a protocol daemon.
	•	
1	83.	The computer program product of claim 81, wherein said second set of
2	instructions co	- 1
3	a fourt	h set of instructions, executable on said computer system, configured to

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create said/second out-bound network connection through a second

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firewall program, wherein said second firewall program prevents inbound access to said second program.

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1	84.	The computer program product of claim 81, wherein said first, said
2	second and sa	aid third sets of instructions are executed on a single computer system.
1	85.	A method of communicating information between a first program and a
2	second progra	am over a network comprising:
3	creati	ng a first out-bound network connection from said first program to a first
4	,	communications program through a first firewall program, wherein
5		said first out-bound network connection is out-bound relative to said
6		first program, and
7		said first firewall program prevents in-bound access to said first
8		program; and
9	creati	ng a second out-bound network connection from said second program to
10		said first communications program through a second firewall program,
11		wherein
12	•	said second out-bound network connection is out-bound relative to said
13		second program, and
14	,	said second firewall program prevents in-bound access to said second
15		program; and
16	relayi	ng said information between said first out-bound network connection and
17		said second out-bound network connection, said relaying performed by
18		said first communications program.
1	. 86.	The method of claim 85, wherein said first communications program is
2	a relay progra	am.
1	87.	The method of claim 85, further comprising:
2	creati	ng a third out-bound network connection from said first program to a
3		third program.

Sui	/		
100		88. The method of claim 87, wherein	
2		said third out-bound network connection is out-bound relative to said first	
3		program and in-bound relative to said third program, and	
4		said third program is configured to accept only an in-bound connection to said	1
5		third program.	
1		89. The method of claim 85, wherein said first program, said first	
2	commi	unications program and said first firewall program are executed on a first	
3	compu	iter system.	
1		90. The method of claim 85, wherein said second program, said first	
2	commi	unications program and said second firewal program are executed on a first	
3	compu	iter system.	
1		91. A computer system comprising:	
2	,	processor;	
3	•	computer readable medium coupled to said processor; and	
4		computer code, encoded in said computer readable medium, configured to	
5		cause said processor to:	
6		create a first out-bound network connection from said first program to	
7		a first communications program through a first firewall	
8	•	program, wherein	
9		said first out-bound network connection is out-bound relative t	0.
10		said first program, and	
11		said first firewall program prevents in-bound access to said first	st
12 -		program; and	
13		create a second out-bound network connection from said second	
14		program to said first communications program through a	
15		second firewall program, wherein	
16		said second out-bound network connection is out-bound	
17		relative to said second program, and	
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18	said second firewall program prevents in-bound access to said
19	second program; and
20	relay said information between said first out-bound network connection
21	and said second out-bound network connection, said relaying
22	performed by said first communications program.
1	92. The computer system of claim 91, wherein said first communications
2	program is a relay program.
1	93. The computer system of claim 91, wherein said computer code is
2	further configured to cause said processor to:
3	create a third out-bound network connection from said first program to a third
4	program.
1	94. The computer system of claim 93, wherein
2	said third out-bound network connection is out-bound relative to said first
3	program and in-bound relative to said third program, and
4	said third program is configured to accept only an in-bound connection to said
5	third program.
1	95. The computer system of claim 91, wherein said first program, said first
2	communications program and said first firewall program are executed on a single
3	processor.
1	96. The computer system of claim 91, wherein said second program, said
2	first communications program and said second firewall program are executed on a
3	first computer system.
1	97. A computer program product encoded in computer readable media,
2	said computer program product comprising:
3	a first set of instructions, executable on a computer system, configured to
4	create a first out-bound network connection from said first program to
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a first communications program through a first firewall program,

wherein

said first out-bound network connection/is out-bound relative to said

first program, and

said first firewall program prevents in bound access to said first

10 program; and

a second set of instructions, executable on said computer system, configured to
create a second out-bound network connection from said second
program to said first communications program through a second

firewall program, wherein

said second out-bound network/connection is out-bound relative to said

second program, and

said second firewall program prevents in-bound access to said second

program; and

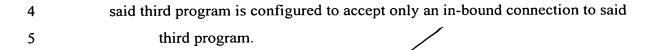
a third set of instructions, executable on said computer system, configured to relay said information between said first out-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

98. The computer program product of claim 97, wherein said first communications program is a relay program.

- 99. The computer program product of claim 97, wherein said computer program product further comprises:
- a fourth set of instructions, executable on said computer system, configured to

 create a third out-bound network connection from said first program to

 a third program.
 - 100. The computer program product of claim 99, wherein said third out-bound network connection is out-bound relative to said first program and in-bound relative to said third program, and



- 1 101. The computer program product of claim 97, wherein said first program,
 2 said first communications program and said first firewall program are executed on a
 3 single processor.
- 1 102. The computer program product of claim 97, wherein said second 2 program, said first communications program and said second firewall program are 3 executed on a first computer system.

